



SHELL OMALA[®] OILS

High quality industrial gear and bearing oils

Product Description

Shell Omala[®] Oils are high quality, extreme-pressure oils designed for the lubrication of heavy-duty industrial gears. Their high load carrying capacity and anti-friction characteristics combine to offer exceptional performance in gears and other industrial applications including some mist applications.

Shell Omala Oils help reduce gear tooth and bearing wear on both steel and bronze components. The load carrying capacity of **Shell Omala Oils**, as determined in laboratory tests, meets Shell's stringent requirements to be offered globally. The additive system helps to reduce gear tooth wear, particularly under conditions of high load. Shell Omala Oils are suitable for spur, helical and bevel gears and are designed to operate under conditions of heavy and shock loads.

Shell Omala Oils withstand elevated temperatures and resist the formation of sludge. The formulation helps provide extended oil life even under higher than normal operating temperatures. **Shell Omala Oils** protect both steel and bronze components, even in the presence of contamination by water and solids. **Shell Omala Oils** also have excellent water separation properties, such that excess water can be drained easily from lubrication systems. Water can greatly accelerate surface fatigue with gears and bearings as well as promoting ferrous corrosion on internal surfaces. Water contamination should therefore be avoided or removed as quickly as possible after the occurrence.

Shell Omala Oils are formulated using high viscosity index base oils, and incorporate a special sulfur-phosphorus additive to provide extreme pressure performance.

They are available in several ISO viscosity grades ranging from 68 to 3200.

Applications

- steel gear transmissions including spur, helical and bevel gears
- industrial gear drives where full extreme pressure performance due to heavy or shock loading is needed
- plain and roller contact bearings
- circulating and splash lubricated systems
- mist systems

Note: For automotive hypoid gears, use the appropriate **Shell Spirax[®] Heavy-Duty** or **Shell Spirax[®] S** lubricant.

Performance Features and Benefits

- outstanding oxidation and thermal stability which helps extend oil life
- effective corrosion inhibition to help protect gearbox components
- effective sulfur-phosphorus extreme pressure system to prevent wear under tough conditions
- wide range of viscosities to meet a wide variety of operating conditions
- excellent water shedding properties which allow the water to separate and be drained protecting components from rust and corrosion
- excellent load carrying capacity helping to extend equipment life

Specifications, OEM Listings and Approvals	
<ul style="list-style-type: none"> • AGMA 9005 D94EP (150-3200 grades) • Bosch Rexroth (Listing) • Boston Gear (Listing) • David Brown (Approval) • Danieli (Listing) • FAG (Listing) • Falk (Listing) • GM LS-2 verification upon request (ISO grades 150, 220, 320 and 460) 	<ul style="list-style-type: none"> • Lenze AG (Approval) • Minter Machine Company (Approval) • Morgan Construction (Listing) • Mueller Weingarten (Listing) • Rexnord-Stephen (Approval) • Wartsila (Approval) • US Steel 224 (150-3200 grades)

Typical Properties of Shell Omala® Oils											
	Test Method	ISO Viscosity Grade									
		68	100	150	220	320	460	680	1000	1500	3200
AGMA EP Gear Oil Grade		68	100	150	220	320	460	680	1000	1500	3200
Old AGMA Grade		2 EP	3 EP	4 EP	5 EP	6 EP	7 EP	8 EP	8A EP	9 EP	10 EP
Product Code		65101	65103	65104	65105	65107	65108	65109	65541	65542	65543
Gravity, °API	D 287	29.2	28.6	27.4	26.6	25.8	25.0	23.6	22.8	22.2	19.5
Viscosity:											
@ 40°C, cSt	D 445	68	100	150	220	320	460	680	1000	1500	3200
@ 100°C, cSt	D 445	8.8	11.4	14.65	18.6	23.7	30.2	36.4	49.8	61.4	88.8
@ 100°F, SUS	(calc)	356	521	788	1143	1637	2396	3507	5441	8252	18004
@ 210°F, SUS	(calc)	56	65	78	95	118	148	190	242	299	433
Viscosity Index	D 2270	101	99	96	96	97	96	91	95	91	83
Flash Point, COC, °F	D 92	405	420	445	450	460	470	470	475	505	480
Pour Point, °F	D 97	-15	-10	-10	-10	0	10	10	15	20	40
Copper Corrosion @ 212°F	D 130	1a	1a	1a	1a	1a	1a	1a	1b	1b	1b
Foam, tendency/stability	D 892										
Seq I ml/ml		nil/0	nil/0	nil/0	nil/0	nil/0	nil/0	nil/0	---	---	---
Seq II ml/ml		15/0	nil/0	nil/0	nil/0	nil/0	nil/0	nil/0	---	---	---
Seq III ml/ml		nil/0	nil/0	nil/0	nil/0	nil/0	nil/0	nil/0	---	---	---
FZG, Scuffing Load Capacity, Fail Stage	D 5182	12+	12+	12+	12+	12+	12+	12+	--	--	--
Timken, OK Load, lbs	D 2782	60	60	65	70	75	80	80	60	60	60
Four-Ball EP											
Load Wear Index, kgf	D 2783	45	45	45	45	46	47	47	45	45	45
Weld Point, kgf		250	250	250	250	250	250	250	250	250	250
Demulsibility	D 2711										
Free water, ml		87.1	87.2	85	84.8	84.5	82.5	82.5	--	--	--
Emulsion, after cntrfg ml		0.1	0.2	0.2	0.2	0.2	0.1	0.1	--	--	--
Rust Protection	D 665B	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass

Handling & Safety Information

For information on the safe handling and use of this product, refer to its Material Safety Data Sheet at <http://www.shell-lubricants.com/msds/>. If you are a Shell Distributor, please call **1+800-468-6457** for all of your service needs. All other customers, please call **1+800-840-5737** for all of your service needs. Information is also available on the World Wide Web: <http://www.shell-lubricants.com>.

